

Amendments to and Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-4. (Canceled)

5. (Previously Presented) A circuit for accelerating an initial pseudo-random bit flow having a length of 2^{n-1} bits generated from a polynomial of an irreducible degree n at a first frequency, into an identical accelerated bit flow at a second frequency greater than the first clock frequency, the circuit comprising a combiner having a first input adapted to receive the initial bit flow and having an output adapted to provide the accelerated flow, a second input of the combiner being connected by a delay element to the combiner output, the delay τ of the delay element respecting the following relation:

$$\tau = ((2^\ell) * T_1) - T_0,$$

wherein T_1 represents the clock period of the input bit flow, T_0 represents the clock period of the output bit flow, and ℓ is a non-zero integer setting a decimation parameter,

wherein delay τ is also selected to respect the following relation:

$$\tau = (2k+1) * (2^n - 1) * T_0,$$

where k represents any non-zero integer, and where n represents the degree of the irreducible polynomial of the random sequence.

6. (Previously Presented) The circuit of claim 5, further comprising a regeneration circuit configured to shape at the second frequency the output of the combiner.

7. (Previously Presented) The circuit of claim 5, wherein a phase-shifting element is further provided between the generator of the original pseudo-random bit sequence and the combiner.

8. (Previously Presented) The circuit of claim 5, wherein the initial bit flow is obtained by a flip-flop generator.

9. (Previously Presented) The circuit of claim 5, formed by at least one of optical and electronic means.

10. (Canceled)